

# Virtual Conference on European Green Deal

## EU Green Deal: Perspective of Indian Tea Industry



**Dr. Raktim Pal**  
**Principal Scientist & Head**  
**Lead Instructor (LI) & Preventive Controls Qualified**  
**Individual (PCQI) for Human Food, Food Safety**  
**Preventive Controls Alliance (FSPCA, USA)**

# Tea growing areas in India

State	Organized Sector		Small Tea Grower (STG)		Total	
	No. of Tea Gardens	Tea Area in Hectares	No. of STGs	Tea Area in Hectares	Growers	Tea Area (Ha)
<b>Assam</b>	762	232961.73	122415	114848	123177	<b>347809.73</b>
<b>West Bengal</b>	449	114479.37	36559	24212	37008	<b>138691.37</b>
<b>Other North India</b>	116	12115.93	16148	19500	16264	<b>31615.93</b>
<b>North India</b>	1327	359557.03	175122	158560	176449	<b>518117.03</b>
<b>Tamil Nadu</b>	129	29503.85	46481	34409	46610	<b>63912.85</b>
<b>Kerala</b>	95	30306.82	7923	5344	8018	<b>35650.82</b>
<b>Karnataka</b>	16	2093	-	-	16	<b>2093</b>
<b>South India</b>	240	61903.67	54404	39753	54644	<b>101,656.67</b>
<b>All India</b>	<b>1,567</b>	<b>421,460.70</b>	<b>229,526</b>	<b>198,313</b>	<b>231,093</b>	<b>619,773.70</b>

Source: Tea Board of India as on 31-03-2022

# Tea production in India

Year	North India	South India	All India
2017	1087.71	234.65	1321.76
2018	1113.76	224.87	1338.63
2019	1171.09	218.99	1390.08
2020	1035.48	222.05	1257.53
2021	1108.04	235.02	1343.06

Quantity in M. Kgs

Source: Tea Board of India as on 31-03-2022

# World Production

Country	2017	2018	2019	2020	2021
China	2496.41	2610.39	2799.38	2986.02	<b>3063.15</b>
India	<b>1321.76</b>	<b>1338.63</b>	<b>1390.08</b>	<b>1257.53</b>	<b>1343.06</b>
Kenya	439.86	493.00	458.85	569.54	<b>537.83</b>
Sri Lanka	307.72	304.01	300.13	278.49	<b>299.34</b>
Vietnam	175.00	185.00	190.00	186.00	<b>180.00</b>
Indonesia	134.00	131.00	128.80	126.00	<b>127.00</b>
Others	843.64	904.16	893.91	875.92	<b>904.81</b>
<b>Total</b>	<b>5718.39</b>	<b>5966.19</b>	<b>6161.15</b>	<b>6279.50</b>	<b>6455.19</b>

Quantity in M. Kgs

Source: ITC Annual Bulletin of Statistics 2022 through Tea Board of India

# World Export

Country	2017	2018	2019	2020	2021
Kenya	415.72	474.86	496.76	518.92	<b>558.93</b>
China	355.26	364.71	366.55	348.82	<b>369.36</b>
Sri Lanka	278.20	271.78	289.59	262.73	<b>282.84</b>
India	<b>251.91</b>	<b>256.06</b>	<b>252.15</b>	<b>209.72</b>	<b>196.54</b>
Vietnam	140.00	130.00	134.91	130.00	<b>145.00</b>
Others	355.92	369.96	369.38	361.02	<b>376.22</b>
<b>Total</b>	<b>1797.01</b>	<b>1867.37</b>	<b>1909.34</b>	<b>1831.21</b>	<b>1928.89</b>

Quantity in M. Kgs

Source: ITC Annual Bulletin of Statistics 2022 through Tea Board of India

# Export of Indian Tea in EU Countries

Countries in the EU	Jan Oct, 2022*		Jan-Oct, 2021	
	Qty (M.Kgs)	Value (Mill US\$)	Qty (M.Kgs)	Value (Mill US\$)
<b>Netherlands</b>	2.18	11.71	2.20	14.82
<b>Germany</b>	7.01	31.82	8.14	38.05
<b>Ireland</b>	1.67	15.65	1.48	11.97
<b>Poland</b>	4.56	12.79	4.40	12.47
<b>Total</b>	<b>15.42</b>	<b>71.97</b>	<b>16.22</b>	<b>77.31</b>

\*Provisional

Source: Tea Board of India

# European Commission's New Deal for Pollinators

Reversing decline of pollinators by 2030

Key priority is improving pollinator conservation and tackling the causes of their decline. This will be done through:

- Better conservation of species and habitats
- Restoring habitats in agricultural landscapes
- Mitigating the impact of pesticide use on pollinators
- Enhancing pollinator habitats in urban areas.
- Tackling the impacts on pollinators of climate change.

# EC's Policy for sustainable use of pesticides

EC has adopted a proposal on the Sustainable Use of Plant Protection Products with targets to 50% reduce the use and risk of chemical pesticides by 2030.

The main measures include:

- ❑ Legally binding targets at EU level to reduce the use, withdrawal of the renewal of the approval of the active substances Clothianidin and Thiamethoxam, reducing the regulatory standard, etc..
- ❑ Environmentally friendly pest control through Integrated Pest Management (IPM).
- ❑ A ban on all pesticides in sensitive areas such as urban green areas, including public parks or gardens, playgrounds, recreation or sports grounds, public paths as well as protected areas and any ecologically sensitive area to be preserved for threatened pollinators.

# EC's Action plan

- ❑ The Commission, for the first time ever, will take a measure to take account of global environmental considerations when deciding on MRLs in food.
- ❑ Imported food containing measurable residues of prohibited substances will not be marketed in the EU.
- ❑ Encourage other countries to limit or prohibit the use of pesticides already banned in the EU.
- ❑ Initiate measure to reduce residues of Thiamethoxam and Clothianidin at zero, two substances with toxic effects on pollinators.

# Tea Cultivation in India

- ❑ Tea growing areas in India are majority on remote locations irrespective of states and different agro-climatic zones.
- ❑ The type of soil (i.e. acidic) and landscape in the tea growing areas are typically specific for tea cultivation.
- ❑ The tea growing areas are far from cultivable lands for agri-horticultural crops as well as soil and landscape are mostly not suitable for the purpose.
- ❑ Tea plant is not maintained up to flowering stage and thus it is not a preferred habitat for Pollinators.

# Impact of Prohibiting use of Thiamethoxam and Clothianidin on Indian Tea Cultivation

- ❑ **REGULATORY LIMIT:** The EC will restrict the MRLs for Thiamethoxam and Clothianidin in Tea at the Limit of Analytical Determination i.e. 0.05 mg/kg in Tea applicable from 7 March 2026 but Regulation (EC) No 396/2005 shall continue to apply to products, which were produced in the Union or imported into the Union before 7 March 2026.
- ❑ **CROP PROTECTION METHOD:** The tea gardens across all the areas in India operates pest control through Integrated Pest Management (IPM) using non-chemical approaches such as cultural, biological, physical and mechanical control measures. Use of chemical pesticides is the last resort.
- ❑ However, effective pest control depends on agro-climatic condition.
- ❑ Under changing and adverse climatic condition effective pest control may not always be possible or viable following organic agricultural practices. The level of non-chemical approaches in IPM may vary on case to case basis leading to use of a substantial amount of chemical pesticides to save the crop.

# Impact of Prohibiting ... Continued

- ❑ **CONCERN:** The change in climatic conditions mainly irregular rainfall either prolonged dry spell/sudden heavy rainfall, occasionally long sun less period has critically affected the humidity and temperature patterns leading to unpredicted pest attacks in tea crops.
- ❑ **OPTION FOR CHEMICAL PESTICIDE:** Thiamethoxam, Clothianidin and Thiacloprid are the only approved systemic insecticides in India for use in tea cultivation against sucking pests mainly Tea Mosquito Bug (*Helopeltis*) and Thrips (*Heliethrips*).
- ❑ **WAY FORWARD:** New safer pesticide molecules for effective pest control with more chances of conformance as per national and international regulatory standards.

# Impact of Prohibiting ... Continued

- ❑ In absence of any alternate effective and safer pesticide molecules for control of Tea Mosquito Bug and Thrips industry have to depend only on a single pesticide Thiacloprid,
- ❑ Thus, implementation of the EU MRL at 0.05 mg/kg to restrict use of Thiamethoxam and Clothianidin may prove devastating to Indian Tea Industry which may lead to half crop loss in majority areas or even total crop loss in certain pest prone areas.
- ❑ The current reported levels in Indian Teas for Thiamethoxam is 0.05 – 0.5 mg/kg and Clothianidin is 0.05 – 0.2 mg/kg. The levels complies well the CXLs, EU & FSSAI MRLs. Proposed reduction in EU MRLs at 0.05 mg/kg may lead to non-conformance of a substantial volume of teas.

# Risk Assessment

- ❑ Tea is a commodity which never been consumed in raw/as it is form but taken as a brew. The brew factor depends on the chemical nature of the molecule, solubility in warm water, and method to prepare the brew (determining the contact time between tea and warm water).
- ❑ The ADI of Thiamethoxam and Clothianidin are 0.08 and 0.1 mg/kg body weight (Source: JMPR 2010). For an adult of average 60 kg body weight taking 5 cups of tea @ 2 g tea per cup consumes 10 g tea per day.
- ❑ ADI for an adult with 60 kg bw is thus 4.8 mg for Thiamethoxam and 6 mg for Clothianidin.
- ❑ Through consumption of 10 g tea per day an adult will intake 0.2 mg of Thiamethoxam (CXL & EU MRL – 20 mg/kg) i.e. 4.17% of ADI and 0.007 mg of Clothianidin (CXL & EU MRL – 0.7 mg/kg) i.e. 0.12% of ADI.
- ❑ Thus, the current regulatory limits is in much safer position for consumer's health and safety.

# How to Mitigate Trade Impact

- ❑ The Indian Tea Industry welcome and respects this novel approach by the European Commission to safeguard the Pollinators from their decline, save us and our future.
- ❑ In absence of any alternate effective, safer and eco-friendly new insecticide approved by Indian authorities to save tea crop, as tea cultivation has negligible contribution on pollinator decline, to avoid trade barrier, the EC should consider case to case basis exempting the tea sector away from this action plan.